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ABSTRACT

Lexical semantics and contrastive lexical semantics can serve as a background discipline to describe and, to some extent, to explain errors in interlanguage. Two developments in lexical semantics that are relevant in this area are the description of sense-relationships and componential analysis. Contrastive lexical semantics involves mapping the meanings of second language items onto those of equivalent items in the native language, and more broadly, comparing, in lexical terms, the ways the two languages organize perception of the world. Contrastive lexical semantics is essential for understanding some aspects of lexical difficulty. Knowledge in these areas can give insight into the ways a second language learner semanticizes, presents, and selects vocabulary, the ways in which vocabulary is structured, the sorting out of meanings in closely-knit semantic fields, the relatedness of lexical items from different semantic fields, and the factors affecting word association, all of which relate in some way to the development of interlanguage. These are factors that must be kept in mind when one is designing materials and techniques for teaching and learning a second language. (MSE)

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LEXICAL SEMANTICS AND ITS APPLICATION TO SECOND AND FOREIGN LANGUAGE VOCABULARY LEARNING AND TEACHING

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LEXICAL SEMANTICS AND ITS APPLICATION TO SECOND AND FOREIGN LANGUAGE VOCABULARY LEARNING AND TEACHING

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Introduction

The title of my paper is probably slightly misleading. At one time I was inclined to turn it into a survey of current research, but then found that rather too ambitious for a 20-minute paper. Obviously lexical semantics is only one of the fields of research that can help us to understand vocabulary learning. Like the relationship between general linguistics and FLT, that between lexical semantics and FLL and FLT is indirect. To the extent that I stress the inadequacy of lexical semantics for the purposes I have in mind I will, however, go beyond what the title implies.

A mistake not infrequently made by applied linguists is to assume that new developments in linguistics should have immediate applications to teaching. In this decade, which one is now justified to look at in a historical perspective, we have learnt a great deal about what is happening when people communicate, how language functions in society, what texts are made of, what language learners are like, and so forth. Wilkins reminds us that it is problems in teaching a FL that should provide the starting point, and not the reverse:

> We do not take developments in linguistics and look for ways of applying them to teaching. Instead, we face problems in language teaching and in trying to solve them we look at the evidence from linguistics.
>
> (Wilkins 1972:228)

In spite of the title of my paper I shall feel free to adopt a pedagogical point of view as well, at the same time as I would not like to forget the most important factor of all, the learner.

In language didactics there is room for findings both from the study of language as a PRODUCT and language as a PROCESS. Characteristically, the mainstream of linguistics deals with language as a PRODUCT, as something ready-made, something that can be taken to pieces. Words or lexical items would be the most typical examples of language as a PRODUCT. Words can be stored in glossaries and dictionaries. Some people even believe that words can be stored in your mind. Words are ready-made in a sense that sentences

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are not, although this does not prevent words from being subject to processes such as inflection and word-formation. There are of course larger prefabricated units than lexical items, e.g. institutionalized speech acts, but I shall not be dealing with those here.

There is a growing interest in vocabulary and I would no longer quite agree with those who maintain that this is a neglected field of research (cp. Levenston 1979). Admittedly, in INTERLANGUAGE ANALYSIS, i.e. the study of language learners' language, syntax and morphology have attracted more attention than lexis. The mere profusion of words and the difficulty in bringing some order into what one tends to think of as disparate elements have no doubt been offputting. Even so there is a considerable body of knowledge to draw on. This knowledge is derived from lexical semantics, contrastive lexical semantics, L1 acquisition, word association studies, error analysis, and the study of how learners with a limited linguistic repertoire cope with the FL in communicative situations. This includes what have been called COMMUNICATION STRATEGIES, such as paraphrases, transfer, and avoidance strategies (Palmberg 1978:140ff.).

Finally it should be added that nobody doubts the usefulness of vocabulary research. There are several investigations of error gravity which show that native speakers regard lexical errors as more serious than grammatical errors (Engh 1971; Johansson 1978). Anybody who has had to manage with a minimal vocabulary in a FL knows that you can generally communicate to some extent without grammar.

Some uses of lexical semantics

Theoretical preliminaries. - Lexical semantics is concerned with theories of how the lexicon in a theoretical sense is structured in languages, and how the meaning of lexical items can best be described. Our view of vocabulary learning can therefore be affected by semantic theory. There are two developments in lexical semantics that are particularly worth noting. One is the description of sense-relationships, i.e. a word or lexical item part of a system of relationships with other lexical items in the vocabulary (= STRUCTURAL SEMANTICS; cf. Lyons 1968:427). According to this view, words are products but not semantically isolated units. Another way of looking at meaning is to describe the meanings of words in terms of bundles of components (Lyons 1968:427ff.; Leech 1974). This is referred to as COMPONENTIAL ANALYSIS. The two views are by no means mutually exclusive.

Since you can hardly get away from your native language as a FL learner,

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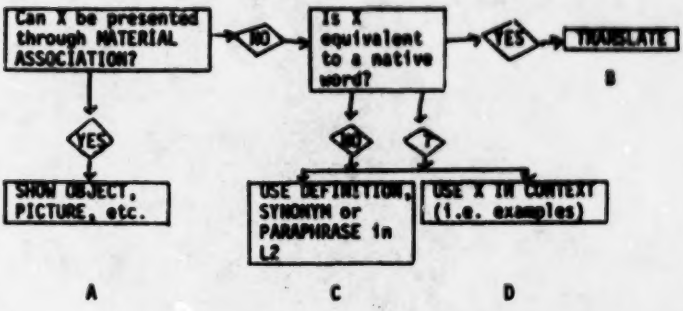
CONTRASTIVE LEXICAL SEMANTICS is essential for the understanding of some aspects of lexical difficulty. This would involve mapping the meanings of FL items on to those of equivalent items in L1, and more widely, comparing the ways in which L2 and L1 cut up parts of the world in terms of lexical items.

Semanticizing, presenting and selecting vocabulary. - The first words most beginners in a FL are still exposed to are usually words referring to people, objects and activities in the immediate environment. The setting can of course also be a representation of the foreign country. The contribution of lexical semantics to this area is rather trivial. Learners quickly realise that L2 uses different words for the same or very similar referents. What they do not realise so easily, however, is that even with very common words there is seldom a one-to-one relationship between a word in L1 and an equivalent word in L2. To a large extent one might look upon this sort of vocabulary learning as a form of RELEXIFICATION, the replacement of the lexicon of the mother tongue with the lexicon of the target language (Todd 1974:36). Relexification is based on the dangerous assumption that L2 and L1 are semantically isomorphic.

This is not the right place to deal with the role of translation in vocabulary teaching, but I would like to repeat what Harold Palmer wrote on this subject (Palmer 1968 (1917):49ff.). If one works out an algorithm for the presentation of word meaning according to Palmer, it looks as follows:



There is a certain ordering so that A is to be preferred to B whenever this does not conflict with any pedagogical or didactic principles. Obviously the

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use of visual presentation is particularly useful in the early stages of teaching a FL whereas all the other modes would be more common later.

If one realises that one cannot prevent learners from making internal translations, it is no use trying to avoid giving the translation of words whose meaning would otherwise remain unclear. But it is one thing to present the meaning, another thing to make the learner internalize the meaning, or semanticize the word, as Palmer called it (Palmer 1968:49). For the internalization, it is necessary to relate the word to others which tend to cluster around it in communication, to make use of modes C and D in Palmer's set-up. This is where lexical semantics comes into the picture because it can help to organize our knowledge of lexical equivalent and other aspects of semantic structure. There is a potential extension of lexical semantics here to text semantics. It is well known that for a dialogue or text to cohere there usually must be at least some lexical items that are connected semantically. This is not a sufficient condition on textual coherence, but one that non-linguists would be most aware of. Functional teaching materials would try to relate such clusters of words to communicative tasks that appeal to particular groups of learners.

The chief objective of learning vocabulary is to expand the learner's communicative resources, to deal with new concepts, themes and situations in the FL. Part of the recent interest in the CONTENT of FLT is no doubt due to the work done on the specification of language teaching objectives by experts for the Council of Europe. The main criterion for inclusion of an item, grammatical or lexical, in the functional/notional approach is COMMUNICATIVE VALUE (van Ek 1977:151). This is not the same as frequency since one can very well imagine that frequency lists do not necessarily reflect the communicative tasks that language learners should be expected to master after they have been through 6 or 7 years of English. A critical comment could, however, be made on the specification of LEXICAL content in the Threshold Level.

The main emphasis in this specification is on behavioural objectives. By being very explicit in the description of objectives the Threshold Level gives a very good idea of what the language learner should be expected to do in a European setting. Any lexical inventory or word list is, of course, easily open to criticism for the simple reason that it is a list. When looking at the T-Level lexicon, one gets the impression that the T-Level aims at the middle-class tourist who never gets to the point of being emotionally involved in anything. Thus the T-Level list is very poor on adjectives. Adjectives such as angry, funny, exciting, lovely, wonderful,

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foolish, pleased, great and poor are all missing although they seem to be essential words in ordinary conversation to describe emotions, attitudes and personal experiences. All of these words are actually found in the base list for the Finnish comprehensive school (VIKKE 1976).

As far as vocabulary is concerned, the main emphasis now seems to be on the quality rather than the quantity of words, which is in line with developments in syllabus design. From the learner's point of view, it would also be valuable to have information on how to learn vocabulary. The insights that can be gained from lexical semantics are no doubt limited but should not be neglected.

The structure of the vocabulary. - Fillmore in a paper from 1978 raises the question to what extent the description of one lexical item can make reference to specific lexical items (Fillmore 1978:148). The FL teacher's question would rather be: to what extent can I refer to other words in L2 when teaching the meaning of a particular word (= Palmer's mode C)? And the well motivated learner, when faced with communicative difficulty, would try to get around the difficulty by finding a more general word or some paraphrase or some other device that he thinks would work with the person he is speaking to.

Recent research shows that the cognitive and perceptual categories which underlie semantic relations are based on our ways of perceiving the world. Thus HYPONYMY has to do with hierarchical arrangement, ANTONYMY is based on differences or contrasts whereas SYNONYMY relies on identity or rather close similarity. Of these relationships I shall here have to confine myself to hyponymy.

Hyponymy. - Dictionary definitions often contain very general items such as person in the definition of writer in LDCE:

a person who writes as a job or who has written a particular thing

As Lyons has pointed out (1977:298), the word person is on a par with other very general lexical items like animal, fish, bird, insect, thing, place, stuff, material, quality, property and state. All of them serve as some sort of lexical anaphora.

Typically the definition above contains another general noun, thing. The lexical hierarchy that writer is part of does not really become interesting until one starts looking at what such a thing can be (a poem, a book, an article, and so forth). Without giving an exhaustive analysis, the following illustration may help to show what I have in mind:

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For teaching purposes I would claim that it is important to realise that novelist, playwright, and so on are HYPONYMS of author, which in turn is subordinated to writer. It would, I think, help more advanced learners to organize their vocabulary if exercise books contained visual representations of such relationships between words.

Ann-Marie Cornu, in a paper presented at the 5th International Congress of Applied Linguistics, pointed out that there is a difference between abstract and concrete words in their needs for superordinate concepts in teaching (Cornu 1978). She maintained that since there is available evidence that superordinate concepts are remembered first, one should also make use of this in FLT. But some researchers have shown that concrete words are less dependent on superordinate concepts than abstractions are. A word like vehicle is by no means necessary for anybody to understand the meaning of car or bicycle. Vehicle seems to be a word which is typical of the language of dictionary definitions and traffic regulations rather than that of everyday conversation.

Componential analysis. - Componential analysis involves breaking down the meaning of a word into its semantic components, the combination of which is normally unique to any given word or item. The classic example is the analysis of man, woman, boy and girl:

	HUMAN	MALE	ADULT
man	+	+	+
woman	+	-	+
boy	+	+	-
girl	+	-	-

The implication is that each word must have the given list of features to refer to a man, woman, etc. Detailed componential analysis has been made of kinship terminology, verbs of possession, cooking and judging, and several other fields (Clark and Clark 1977:430). Some of the best known semanticists adhere to this theory (Katz 1972; Leech 1974).

In applied linguistics, componential analysis can be particularly use-

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ful when there is a need to sort out the meanings of the various items in closely-knit semantic fields. Such needs may arise at more advanced levels in translation and the teaching of language for special purposes. At school level, applications would be too atomistic and abstract. It should be noted that the components are not words and that, as soon as the analyst enters unexplored semantic domains, the choice of components becomes a venture if the analysis is possible at all. Even the most devoted practicians are aware of the limitations of this approach to semantic analysis (cf. Clark and Clark 1977:429-32). In FLT contexts the description of the meaning of words in terms of components is very much like describing a person in terms of sex, age, height, the colour of his eyes and hair. But one would also like to know what he is like as a person (CONNOTATIONS), what sort of job he has (GRAMMATICAL FUNCTION), and who he mixes with (COLLOCATIONS).

Collocations. - A knowledge of collocations, i.e. words that go together as lexical items, can be relevant even at an early stage although it would be more typical of advanced lexical competence (cf. Morton 1977). An example will illustrate this. A word like tall usually appears early in courses as a property of human beings (a tall girl - a small girl). Next tall may occur with

Collocations with tall and high

	tall	high
girl	+	-
grass	+	-
tree	+	+
tower	+	+
price	-	+
voice	-	+
standard	-	+

words like tree or tower as a synonym of high. But there are also concrete words such as grass and neck which would take tall but not high. For the study of collocations there is now access to corpuses from which one can quickly extract information which can be useful in lexicography, but indirectly also in FLT, such as in course-design and exercises. Because of the idiosyncrasy in this area and the various degrees of collocational restrictions it would, however, be hazardous to make predictions about vocabulary learning on the basis of collocational analysis.

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Word association studies

There is no obvious link between lexical semantics and word association studies except that semantic theory can be used to explain word associations (Clark 1970). Methodologically, word association studies appear to be totally contrary to the present concern with integrative skills and language in communication: you give a stimulus word to the testee, who is expected to respond by writing down the first word that comes to his mind. Thus cold may yield warm or winter, warm being paradigmatic, winter syntagmatic. Young learners tend to give more syntagmatic responses than adults or advanced learners, who give more paradigmatic responses. This kind of research has a long tradition, but it has recently attracted the attention of scholars who hope to be able to find out about how language learners' interlanguage lexicon is structured.

In an investigation from the early 1970's Hauer (1973) compared the responses of German learners of English and American college students to English stimulus words. It turned out that even after many years of English, German learners produced responses which could be traced to the native language or to the teaching materials. CRY elicited shout and loud or nothing in the Germans while the Americans responded by tears, weep or sob. This may suggest that at German schools the emotive aspect of the word had been ignored. It also shows the native speaker's ability to provide synonyms compared with the L2 learner.

In a more recent study Meara (1978) looks at English schoolgirls' responses to 100 French stimulus words, which were compared with native speakers' responses. The results showed that the semantic organization that could be detected in the language learners' responses reflected a translation from English, i.e. the mother tongue. Many responses were purely FORMAL, and generally the language learners' responses were much more arbitrary and sporadic than those of the native speakers.

Kielhöfer (1978) has also studied responses to French stimulus words but with German learners. He attempts to relate the learners' interlanguage lexicons to a continuum from L1 to L2. Heterogeneity in the language learners' responses is noted by Kielhöfer as well. But he adds an important dimension by looking at word associations which can be derived from linguistic, socio-cultural, and affective factors. Thus it appears that Frenchmen seldom associate vin with bière or vice versa. To the German learners, however, Bier was the first response to Wein, the second being trinken. Kielhöfer interprets this as evidence of socio-cultural differences, which

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he thinks makes the semanticizing of words more difficult. In order to minimize stereotyped attitudes to the culture of L2 in FLT it would be valuable to have more information on socio-cultural differences as reflected in word association studies. Such information could be made use of in the design of teaching materials and in the actual presentation of words.

Like the grammar of the FL learner, the interlanguage lexicon is a dynamic subsystem which differs both from L1 and L2. What word association studies show is that words are not stored in a totally arbitrary fashion; there are relations of hyponymy, synonymy, antonymy, and so forth, which bind words to each other in the mind. If the L2 learner's lexical competence is shaky, it also means that such associations are missing or that they are very loose.

Final comments

Lexical semantics and contrastive lexical semantics can serve in interlanguage analysis as a background discipline to describe and to some extent explain errors. The main types of semantic errors in vocabulary have been known for a long time, but their description is obviously dependent on semantic theory. The distribution of errors would vary according to communicative task or test type. In this area we definitely need feedback from interlanguage analysis to improve FLT.

There are many ways of gathering data for interlanguage analysis. In this connection I shall only say a word or two about compositions. Compositions are not very rewarding for the gathering of data on vocabulary learning, particularly not the type of composition used in the Finnish school-leaving examination since it is so short (about 200 words). In the Finnish gymnasium or senior secondary school there is a glaring discrepancy between the testing of receptive and productive skills, which means that you can get away with a rather small productive vocabulary in the composition, the only test in which vocabulary production is tested at all. At the same time this means that there is nothing in the examination system that encourages learners to devote themselves to more conscious vocabulary learning for production. In an error analysis based on nearly 500 compositions I came across essays which had been accepted and which contained only 50 different lexical items (content words; Viitberg 1979). The snag is of course that there will always be learners whose vocabulary is rather limited. Poor lexical competence in L1 is bound to affect L2 production as well.

Linguistics cannot be expected to tell us how to teach languages. But

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if we want to pay more attention to vocabulary, which is in harmony with communicative language teaching, lexical semantics and contrastive lexical semantics can help to sort out the mess that vocabulary appears to be at first sight. Generally there is a need for more conscious attention to vocabulary learning and teaching.[1]

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[1] For Finnish learners of English some useful materials have recently been published. See Attila et al. (1979), and Chesterman et al. (1979).

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